

Application No.: 10/802,441

2

Docket No.: 58581

This listing of claims will replace all prior versions of claims in the application.

Claim 1. (original) An isolated nucleic acid molecule which encodes a TLT-1 polypeptide, or a complement thereof, wherein the TLT-1 polypeptide can modulate platelet function.

Claim 2. (original) The nucleic acid molecule of claim 1, wherein the TLT-1 polypeptide is membrane-bound, or a complement thereof.

Claim 3. (original) The nucleic acid molecule of claim 1, wherein the TLT-1 polypeptide is a soluble TLT-1 extracellular domain, or a complement thereof.

Claim 4. (original) The nucleic acid molecule of claim 1, which encodes a murine TLT-1 polypeptide, or a complement thereof.

Claim 5. (original) The nucleic acid molecule of claim 1, which encodes a human TLT-1 polypeptide, or a complement thereof.

Claim 6. (original) An isolated nucleic acid molecule comprising the nucleotide sequence set forth in SEQ ID NO:1, 3, 4, 6, 18, 20, 21, 23, 24, or 26, or a complement thereof.

Claim 7. (original) An isolated nucleic acid molecule which encodes a polypeptide comprising the amino acid sequence set forth in SEQ ID NO:2, 5, 19, 22, or 25, or a complement thereof.

Claim 8. (original) An isolated nucleic acid molecule selected from the group consisting of:

(a) a nucleic acid molecule comprising a nucleotide sequence which is at least about 97% identical to the nucleotide sequence of SEQ ID NO:1 or 3, or a complement thereof;

Application No.: 10/802,441

3

Docket No.: 58581

(b) a nucleic acid molecule comprising a nucleotide sequence which is at least about 60% identical to the nucleotide sequence of SEQ ID NO:1, 3, 4, 6, 18, 20, 21, 23, 24, or 26, or a complement thereof, or a complement thereof;

(c) a nucleic acid molecule comprising at least 487 nucleotides of SEQ ID NO:1 or 3, or a complement thereof;

(d) a nucleic acid molecule comprising at least 336 nucleotides of SEQ ID NO: 4 or 6, or a complement thereof;

(e) a nucleic acid molecule comprising at least 30 nucleotides of SEQ ID NO:1, 3, 4, 6, 18, 20, 21, 23, 24, and 26, or a complement thereof

(f) a nucleic acid molecule which encodes a polypeptide comprising an amino acid sequence which is at least about 99% identical to the amino acid sequence of SEQ ID NO:2, or a complement thereof;

(g) a nucleic acid molecule which encodes a polypeptide comprising an amino acid sequence which is at least about 81% identical to the amino acid sequence of SEQ ID NO:5, or a complement thereof;

(h) a nucleic acid molecule which encodes a polypeptide comprising an amino acid sequence which is at least about 60% identical to the amino acid sequence of SEQ ID NO:2, 5, 19, 22, or 25, or a complement thereof;

(i) a nucleic acid molecule which encodes at least 173 contiguous amino acid residues of SEQ ID NO:2, or a complement thereof;

(j) a nucleic acid molecule which encodes at least 111 contiguous amino acid residues of SEQ ID NO:5, or a complement thereof; and

(k) a nucleic acid molecule which encodes at least 10 contiguous amino acid residues of SEQ ID NO:2, 5, 19, 22, or 25, or a complement thereof.

Application No.: 10/802,441

4

Docket No.: 58581

Claim 9. (previously presented) An isolated nucleic acid molecule which hybridizes to a complement of the nucleic acid molecule of claim 1 under stringent conditions.

Claim 10. (currently amended) An isolated nucleic acid molecule comprising the nucleic acid molecule of claim 1 ~~any one of claims 1-8~~ and a nucleotide sequence encoding a heterologous polypeptide.

Claim 11. (previously presented) A vector comprising the nucleic acid molecule of claim 1.

Claim 12. (original) The vector of claim 11, which is an expression vector.

Claim 13. (original) A host cell transfected with the expression vector of claim 12.

Claim 14. (original) A method of producing a polypeptide comprising culturing the host cell of claim 13 in an appropriate culture medium to, thereby, produce the polypeptide.

Claim 15. (original) An isolated TLT-1 polypeptide, wherein the TLT-1 polypeptide can modulate platelet function.

Claim 16. (original) The polypeptide of claim 15, wherein the TLT-1 polypeptide is membrane-bound.

Claim 17. (original) The polypeptide of claim 15, wherein the TLT-1 polypeptide is a soluble TLT-1 extracellular domain.

Claim 18. (original) The polypeptide of claim 15, which encodes a murine TLT-1 polypeptide.

Application No.: 10/802,441

5

Docket No.: 58581

Claim 19. (original) The polypeptide of claim 15, which encodes a human TLT-1 polypeptide.

Claim 20. (original) An isolated polypeptide comprising the amino acid sequence of SEQ ID NO:2, 5, 19, 22, or 25.

Claim 21. (original) An isolated polypeptide selected from the group consisting of:

(a) a polypeptide comprising at least 173 contiguous amino acid residues of SEQ ID NO:2;

(b) a polypeptide comprising at least 111 contiguous amino acid residues of SEQ ID NO:5;

(c) a polypeptide comprising at least 10 contiguous amino acid residues of SEQ ID NO:2, 5, 19, 22, or 25.

(d) a polypeptide which is encoded by a nucleic acid molecule comprising a nucleotide sequence which is at least about 97% identical to the nucleotide sequence of SEQ ID NO:1 or 3;

(e) a polypeptide which is encoded by a nucleic acid molecule comprising a nucleotide sequence which is at least about 60% identical to the nucleotide sequence of SEQ ID NO:1, 3, 4, 6, 18, 20, 21, 23, 24, and 26;

(f) a polypeptide comprising an amino acid sequence which is at least about 99% identical to the amino acid sequence of SEQ ID NO:2;

(g) a polypeptide comprising an amino acid sequence which is at least about 81% identical to the amino acid sequence of SEQ ID NO:5; and

(h) a polypeptide comprising an amino acid sequence which is at least about 60% identical to the amino acid sequence of SEQ ID NO:2, 5, 19, 22, or 25.

Application No.: 10/802,441

6

Docket No.: 58581

Claim 22. (previously presented) The polypeptide of claim 15, further comprising heterologous amino acid sequences.

Claim 23. (original) An antibody which selectively binds to a polypeptide of any one of claims 15-21.

Claim 24. (previously presented) A method for detecting the presence of a polypeptide of claim 15 in a sample comprising:

a) contacting the sample with a compound which selectively binds to the polypeptide; and

b) determining whether the compound binds to the polypeptide in the sample to thereby detect the presence of a polypeptide of claim 15 in the sample.

Claim 25. (original) The method of claim 24, wherein the compound which binds to the polypeptide is an antibody.

Claim 26. (previously presented) A kit comprising a compound which selectively binds to a polypeptide of claim 15 and instructions for use.

Claim 27. (previously presented) A method for detecting the presence of a nucleic acid molecule of claim 1 in a sample comprising:

a) contacting the sample with a nucleic acid probe or primer which selectively hybridizes to the nucleic acid molecule; and

b) determining whether the nucleic acid probe or primer binds to a nucleic acid molecule in the sample to thereby detect the presence of a nucleic acid molecule of claim 1 in the sample.

Claim 28. (original) The method of claim 27, wherein the sample comprises mRNA molecules and is contacted with a nucleic acid probe.

Application No.: 10/802,441

7

Docket No.: 58581

**Claim 29.** (previously presented) A kit comprising a compound which selectively hybridizes to a nucleic acid molecule of claim 1 and instructions for use.

**Claim 30.** (previously presented) A method for identifying a compound which binds to a polypeptide of claim 15 comprising:

- a) contacting the polypeptide, or a cell expressing the polypeptide with a test compound; and
- b) determining whether the polypeptide binds to the test compound.

**Claim 31.** (original) The method of claim 30, wherein the binding of the test compound to the polypeptide is detected by a method selected from the group consisting of:

- a) detection of binding by direct detection of test compound/polypeptide binding;
- b) detection of binding using a competition binding assay; and
- c) detection of binding using an assay for TLT-1 activity.

**Claim 32.** (original) A method for modulating the activity of a polypeptide of any one of claims 15-21 comprising contacting the polypeptide, or a cell expressing the polypeptide, with a compound which binds to the polypeptide in a sufficient concentration to modulate the activity of the polypeptide.

**Claim 33.** (original) A method for identifying a compound which modulates the activity of a polypeptide of any one of claims 15-21 comprising:

- a) contacting a polypeptide of any one of claims 15-21 with a test compound; and

Application No.: 10/802,441

8

Docket No.: 58581

b) determining the effect of the test compound on the activity of the polypeptide to thereby identify a compound which modulates the activity of the polypeptide.

Claim 34. (original) A method for identifying a compound capable of treating a disorder selected from the group consisting of septic shock, cancer, infectious disease, stroke, heart disease, myocardial infarction, arteriosclerosis, clotting disorders, bleeding disorders, platelet insufficiency, and a TLT-1 associated disorder, comprising assaying the ability of the compound to modulate TLT-1 nucleic acid expression or TLT-1 polypeptide activity, thereby identifying a compound capable of treating a disorder selected from the group consisting of septic shock, cancer, infectious disease, stroke, heart disease, myocardial infarction, arteriosclerosis, clotting disorders, bleeding disorders, platelet insufficiency, and a TLT-1 associated disorder.

Claim 35. (original) A method for treating a subject having a disorder selected from the group consisting of septic shock, cancer, infectious disease, stroke, heart disease, myocardial infarction, arteriosclerosis, clotting disorders, bleeding disorders, platelet insufficiency, and a TLT-1 associated disorder, comprising administering to the subject a therapeutically effective amount of a TLT-1 modulator, thereby treating said subject having a disorder selected from the group consisting of septic shock, cancer, infectious disease, stroke, heart disease, myocardial infarction, arteriosclerosis, clotting disorders, bleeding disorders, platelet insufficiency, and a TLT-1 associated disorder.

Claim 36. (original) The method of claim 35, wherein the TLT-1 modulator is a TLT-1 polypeptide.

Claim 37. (original) The method of claim 36, wherein the TLT-1 polypeptide is a soluble TLT-1 extracellular domain.

Claim 38. (original) The method of claim 35, wherein the TLT-1 modulator is an antibody that selectively binds to TLT-1.

Application No.: 10/802,441

9

Docket No.: 58581

Claim 39. (previously presented) The method of claim 38 wherein the antibody binds to a TLT-1 polypeptide that can modulate platelet function.

Claim 40. (previously presented) The method of claim 38 wherein the antibody binds to a polypeptide comprising the amino acid sequence of SEQ ID NO:2.

Claim 41. (previously presented) The method of claim 38 wherein the antibody binds to a polypeptide comprising the amino acid sequence of SEQ ID NO:5.

Claim 42. (previously presented) The method of claim 38 wherein the antibody binds to a polypeptide comprising the amino acid sequence of SEQ ID NO:17.

Claim 43. (previously presented) The method of claim 38 wherein the antibody binds to a polypeptide comprising the amino acid sequence of SEQ ID NO:19.

Claim 44. (previously presented) The method of claim 38 wherein the antibody binds to a polypeptide comprising the amino acid sequence of SEQ ID NO:22.

Claim 45. (previously presented) The method of claim 38 wherein the antibody binds to a polypeptide comprising the amino acid sequence of SEQ ID NO:25.

Claim 46. (previously presented) The method of claim 38 wherein the antibody binds to a polypeptide that comprises at least 173 contiguous amino acid residues of SEQ ID NO:2.

Claim 47. (previously presented) The method of claim 38 wherein the antibody binds to a polypeptide that comprises at least 111 contiguous amino acid residues of SEQ ID NO:5.



Application No.: 10/802,441

10

Docket No.: 58581

Claim 48. (previously presented) The method of claim 38 wherein a monoclonal antibody is administered to the subject.

Claim 49. (previously presented) The method of claim 38 wherein the subject has a TLT-1 associated disorder.

Claim 50. (previously presented) The method of claim 38 wherein the subject is suffering from a clotting disorder or bleeding disorder.

Claim 51. (previously presented) The method of claim 38 wherein the subject is suffering from septic shock.

Claim 52. (new) The method of claim 35, wherein the TLT-1 modulator is an antibody that binds to TLT-1.

Claim 53. (new) The method of claim 52 wherein the subject is suffering from a clotting disorder.